

WHAT IS CLAIMED:

1. A parameter setting apparatus for setting a recording parameter for use in optical information recording on a recording medium, by use  
5 of any one of a plurality of setting areas previously provided on the recording medium, the apparatus comprising:

a checking device for checking whether a special detected signal is optically detected or not from the setting areas;

a retrieving device for retrieving a non-used area that is the  
10 setting area where no special detected signal is detected, of the setting areas, based on the check result of the checking device;

a mark signal recording device for optically recording a mark signal for obtaining the special detected signal optically, in the detected non-used setting area;

15 a setting signal recording device for recording a setting signal for setting the recording parameter, at least, in the non-used setting area excluding an area where the mark signal is recorded; and

a setting device for setting the recording parameter by optically detecting the recorded setting signal.

20 2. The parameter setting apparatus according to Claim 1, wherein the mark signal recording device records the mark signal at a position detected prior to the setting signal recorded in the non-used setting area.

25 3. The parameter setting apparatus according to Claim 1, wherein

the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

5 4. The parameter setting apparatus according to Claim 2, wherein  
the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

10 5. The parameter setting apparatus according to Claim 3, wherein  
the checking device further comprises:

a position retrieving device for retrieving a predicted position of the setting area on the recording medium where the special detected signal is to be optically detected;

15 a first moving device for moving an executing device for detecting the setting signal and the special detected signal, from the retrieved predicted position, to a retrieval starting position on the recording medium distant from there at least by a distance corresponding to the predetermined interval; and

20 a second moving device for repeating an operation of further moving the executing device again from the special detected signal-detected position on the recording medium to a position on the recording medium distant from there at least by a distance corresponding to the predetermined interval, when the special detected  
25 signal is detected while the executing device is moved from the retrieval starting position to the predicted position, and further moving the executing device to the predicted position, from a position of the

executing device after the above further moving used as the retrieval starting position, so as to check whether the special detected signal is detected or not; and

the retrieving device regards the setting area adjacent to the setting area where the special detected signal detected last is recorded as the non-used setting area, when none of the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position.

6. The parameter setting apparatus according to Claim 1, wherein the recording parameter is intensity of an optical beam for use in the information recording.

7. The parameter setting apparatus according to Claim 1, further comprising

a recording device for executing the information recording by use of the set recording parameter.

8. A parameter setting method for setting a recording parameter for use in optical information recording on a recording medium, using any one of a plurality of setting areas previously provided on the recording medium, the method comprising:

a checking process for checking whether a special detected signal is optically detected or not from the setting areas;

a retrieving process for retrieving a non-used area that is the setting area where no special detected signal is detected, of the setting areas, based on the check result in the checking process;